

CLAIMS

5 1. A device used to accept an operator input to a computing device, comprising:
a first layer which includes a translucent cover;
a second layer which includes a plurality of surfaces, said surfaces being one of a
capacitive or resistive surface and being constructed using a translucent and conductive
material; and
10 a third layer which includes a light-emitting material which generates light in
response to said operator input.

2. The device of claim 1 wherein said operator input is one of a user's finger and
thumb positioned at a location near a side of said first layer, said side being opposite
15 said second layer, said operator input being used to control an aspect of a computer
display controlled by said computing device.

3. The device of claim 2 wherein said control of said aspect of said computer
display is conveyed through a wireless link between said device and said computing
20 device.

4. The device of claim 2 wherein said control of said aspect of said computer
display is conveyed through a wire line link between said device and said computing
device.

25 5. The device of claim 2 wherein said plurality of surfaces function by
responding to changes in capacitance between adjacent ones of said plurality of
surfaces.

30 6. The device of claim 1 wherein said operator input is one of a user's finger and
thumb applying pressure to said first layer, said pressure being used to control an aspect
of a computer display associated with said computing device.

7. The device of claim 6 wherein said plurality of surfaces function by responding to changes in resistance between adjacent ones of said plurality of surfaces.

5 8. The device of claim 1 wherein said plurality of surfaces is constructed using a material which is transparent.

✓ 9. The device of claim 1 further comprising a fourth layer which generates light of a different color than light generated by said third layer.

10

10. The device of claim 1 wherein said computing device launches a software application that runs on said computing device in response to said operator input.

✓ 11. The device of claim 1 wherein said light-emitting material generates light
15 that persists for a period of time after one of a user's finger and thumb has been positioned at a location on the top side of said first layer, said light being generated only in an area proximate to said location.

✓ 12. The device of claim 1 wherein said light-emitting layer generates light that
20 persists for a period of time after one of a user's finger and thumb has been positioned at a location on the top side of said first layer, said light being generated in areas other than an area proximate to said location.

13. The device of claim 1 wherein said light-emitting material is an
25 electroluminescent material.

14. The device of claim 1 wherein said light-emitting material is a light-emitting diode.

30 15. The device of claim 1, wherein said first, second, and third layers are substantially two-dimensional.

10008416,

16. The device of claim 1, wherein said operator input is a character entered on said translucent cover and said generated light forms a trace of said character.

5 17. The device of claim 1, wherein said generated light presents the appearance of soft keys.

18. A computing device that makes use of a touch pad to provide feedback to a user, said feedback being indicative of an operating mode of at least one input device used by said computing device, comprising:

- 10 a first layer which includes a substantially rigid, transparent surface;
 a second layer which includes a plurality of surfaces proximate with said first layer, said plurality of surfaces being constructed of a transparent and conductive material;
 a third layer which includes a light-emitting layer, said third layer generating
15 light in response to an operator input; and
 an illumination controller coupled to said third layer for bringing about said light generated in response to said operator input.

20 19. The computing device of claim 18 wherein said light-emitting layer is arranged to present a particular symbol to said user.

20. The computing device of claim 18 wherein said third layer additionally notifies said user that said operator input is required.

25 21. The computing device of claim 20 wherein said touch pad additionally receives said operator input.

30 22. The computing device of claim 18 wherein said operator input is a user selecting to use said touch pad to control an aspect of a display coupled to said computing device.

10008416

23. The computing device of claim 22 wherein said aspect of said display is a position of a cursor on said display.

24. The computing device of claim 22 wherein said aspect of said display is a scroll bar used in a window of said display.

25. The computing device of claim 18 wherein said plurality of surfaces functions by responding to changes in capacitance of elements of said plurality of surfaces.

26. The computing device of claim 18 wherein said operator input is conveyed by way of a wireless interface between said computing device and said touch pad.

27. The computing device of claim 18 wherein said computing device is a laptop computer.

28. The computing device of claim 18 further comprising a selector which influences an operating state of said illumination controller.

29. The computing device of claim 18 further comprising a fourth layer which generates light of a different color than said light generated by said third layer, said fourth layer generating light in response to said operator input, said fourth layer also being coupled to said illumination controller for bringing about said light generated in response to said operator input.

30. The computing device of claim 29 wherein said fourth layer covers an area of said touch pad that is substantially less than the area covered by said third layer.

31. The computing device of claim 29 further comprising a selector which activates said third and said fourth layer, thereby allowing said light generated by said third and said fourth layers to be combined to form light of a different color than said third layer and different than said fourth layer.

10008416

32. In a computing device, a method of operating a touch pad, comprising:
reading a selection from an input device;
illuminating a light-emitting layer of said touch pad, thereby indicating that said
touch pad is accepting commands in the form of movements of one of a user's finger or
5 thumb near a surface of said touch pad; and
said touch pad controlling the position of a cursor on a computer display in
response to said movements of said one of said user's finger and thumb.

33. The method of claim 32 further comprising said computing device launching
10 a software application that runs on said computing device, said launching being
performed after said controlling action.

34. The method of claim 32 further comprising said computing device
controlling a view of said display within a larger display area, said further controlling
15 being in response to said movements of said one of said user's finger and thumb.

35. The method of claim 32 further comprising said computing device
controlling zooming of said display, said further controlling being in response to said
movements of said one of said user's finger and thumb.

20 36. The method of claim 32 further comprising said computing device
controlling the positioning of an icon on said display, said further controlling being in
response to said movements of said one of said user's finger and thumb.

25 37. A graphical pointing device used to position an icon on a display,
comprising:
means for determining the position of a user's finger near a top side of said
graphical pointing device, at least a portion of said means for determining said position
being predominantly translucent; and
30 means for illuminating said graphical pointing device, said means for
illuminating being near a bottom side of said graphical pointing device.

10008416

38. The graphical pointing device of claim 37, wherein said at least a portion of said means for determining said position is transparent.

5 39. The graphical pointing device of claim 37, wherein said means for illuminating said graphical pointing device is translucent, and wherein said graphical pointing device further comprises a second means for illuminating, said second means for illuminating being used to generate light of a different color than said first means for illuminating.